Toray Plastics (America), Inc.
1998 StarTrack Environmental Performance Report

Toray Plastics (America), Inc. was eager to participate in the USEPA's StarTracks Program as we saw it as a vehicle to make the needed improvements in our environmental program. In recent years, Toray or TPA, has become a leader in our North Kingstown in environmental issues such as emergency response, by co-chairing in the LEPC, making donations to the NKFD for a lap-top computer for emergency response, and working with RI DEM and NKFD with our emergency response training.

Although emergency response is a key factor to maintaining the environment during abnormal situations, it is only one facet of an effective environmental program. The Star Tracks Program has helped us identify specific items to improve our program. The compliance audit determined program management and recordkeeping items that needed improvement at TPA, such as hazardous waste management and training. In the recent EMS gap analysis, a more thorough understanding of the EMS requirements and the areas for improvement were identified. In the next month, we will be making our long-term plan to achieve this higher level of environmental management. This will be a great benefit to participating in this program.

The following information summarizes our environmental performance for 1998 as well as our compliance and EMS audit results. We look forward to additional improvements in 1999-2000 and future years.

Star Track Environmental Performance Reporting Guidelines

Please submit your completed report in hard and electronic form in either Word or WordPerfect. Please also submit all graphs and charts, including those integrated into the report, as well as Your company logo as individual electronic files in either Excel, 123, or Freelance Illustrator.

Facility Profile

0.1 Name of Company; name and location of facility: Toray Plastics (America), Inc.
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North Kingstown, RI 02852

0.2 Contact Person:

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0.3 Major products/services of facility: manufacturer of polyester resin and film, and polypropylene film for magnetic and food packaging industries, respectively.

0.4 Facility information:
Number of employees: 700
Indicators of production scale for use in normalizing:
Annual pounds of polyester and polypropylene film produced.
Also, annual pounds of polyester resin produced.

0.5 Reporting period (e.g., fiscal/calendar year) for information provided (unless otherwise noted):
January 1, 1998 – December 31, 1998

0.6 Date of most recent previous report, if any. No previous report has been submitted.

1.7 Significant changes in facility size, products/services, that have occurred in the reporting period:
The DMT process for producing polyester resin began routine operation in 1998.
In 1997, the Lumirror Division expanded its production capacity with the start-up of the third production line.

Policies, Organization & Management Systems

1.1 Overview of Environmental Policy and Management Programs

Since 1998, Toray Plastics (America), Inc. has been working to improve our environmental performance. One area that we have begun to focus on is our internal communications and distributing the responsibilities for environmental performance.

TPA established the Corporate Environmental and Safety Committee (CESC) and the Division Environmental and Safety Committee (DESC). These committees meet at least ten times per year to focus on prioritizing the environmental and safety issues and assigning appropriate resources to make the needed improvements.

The CESC is made up of the following members: Executive Vice-President, Senior Vice-President of Operations, Engineering Director, Lumirror Manufacturing Director, Torayfan Production Manager, OBR Production Manager, Human Resources representative, Environmental and Safety Manager, and Process Safety Engineer. The mission of this group is to set goals for all of TPA to improve our environmental and safety performance and allocate the necessary resources to achieve these goals. For example, in 1998, a goal was set to reduce our water usage by 10%.

There are three DESC groups that meet at least 10 times per year. The members of these groups include department managers of each division – Lumirror, Torayfan, and OBR. The chairman of each of these groups attends the CESC to report on each group's progress. The purpose of the DESCs is to implement specific projects or programs at the division level to achieve the goals set by the CESC.

These focused meetings have continued on a routine basis. However, during 1999, TPA has made an extremely strong effort to improve our safety performance. With the recent EMS gap analysis and plans for implementing the EMS, the groups will be working to develop our EMS and achieve the targets and objectives set by TPA.

Other aspects of TPA's management program include new employee training and engineering project review. The Lumirror and Torayfan trainers provide orientation for new employees. Depending on the new employee's position, this training includes environmental awareness, such as hazardous waste generator requirements. One area of improvement identified in the EMS gap analysis is this training. TPA plans to expand our environmental awareness training and provide different levels of training to all TPA employees.

The environmental and safety department is involved in the review of engineering projects. When a project is proposed, a Request for Management Approval is prepared. This form, including the project design and operation description, is circulated to all department managers, including the environmental and safety manager for approval. The capital required for the project is not approved until the RMA has completed the appropriate circulation and approval.

In addition, TPA has a Process Modification Review system under our Management of Change policy. Similarly, process changes are circulated to all involved departments and must be approved by the environmental and safety department representatives. These two avenues allow for communication of upcoming projects and changes for review for environmental and safety impacts.

1.2 *Organizational Structure and Responsibilities*

See Attachment 1

2.3 Management Systems for Environmental Issues
2.4 Status of External Certification

TPA's environmental and safety department reports to our executive vice-president and senior vice-president of operation. Attached is an organizational chart describing this department. Presently, much of the responsibilities for environmental improvements fall within this organization. However, as the CESC and DESCs develop the EMS, these responsibilities will be shared with the operations departments.

More recently, TPA has organized a system for environmental and safety policy review. A schedule for policy revision has been prepared. Policy review teams have been designated and includes representatives from departments who will most be affected by the policy. The environmental and safety department is responsible for preparing the draft policy (or the revised policy). Once the review team has approved all changes, the policy is presented to the CESC for final approval. The goal is to update ten policies per year.

As TPA begins implementation of the EMS, our management systems for handling other environmental issues will be better organized. TPA's EMS gap analysis was completed in August, 1999. At this time, we are reviewing the environmental report and preparing our long-term implementation plan for the environmental management system. At this time, we have no date planned for external environmental certification, but hope to achieve this certification in the future.

Community Relationships

3.1 Policies/procedures for Considering Community Impacts

Toray Plastics (America), Inc. is a member of the Community Awareness Panel for Quonset Point/Davisville Park. This panel is made up of volunteers from Quonset Point industries and services, emergency services, town neighbors, and local services (planning board, education). This group meets on a monthly basis with the mission to improve the relationship between business and the community. Our two main focuses are emergency planning and community projects.

This is a committed group of volunteers and provides an effective avenue for TPA to communicate with the community. At this meeting, TPA explained the recent refrigerant issues and the agreement that was reached between the EPA and TPA. In addition, TPA explained the RMP regulations and our work to complete our RMP and reduce our inventory of propane stored on-site. This information was well-received by the group. In the future, projects at TPA could be introduced to this group to gain their insight.

3.2 Coordination with Local Emergency Responders

Toray Plastics (America), Inc. is a member of the Local Emergency Planning Committee. TPA's process safety engineer is the vice-chairman of this committee. TPA was the first company to show strong support for the LEPC by undertaking a board position. TPA has hosted informational workshops for local companies to explain their requirements for storing extremely hazardous substances.

In addition to leading the LEPC, TPA holds monthly emergency response training sessions for our on-site emergency responders. The North Kingstown Fire Department participates in some of these

training classes. Most recently, TPA invited the NKFD to participate in our confined space rescue training sessions held in June 1999. This was well received by both TPA and NKFD employees and helped to build the partnership with the fire department.

3.3 Communication with Facility Neighbors regarding Evacuation

This topic has been discussed at the Community Awareness Panel meetings. In preparation for this topic, the CAP hosted an RMP workshop for the Quonset Point businesses who fall under this regulation. In spring '00, Toray plans to hold a mock spill drill with the CAP participating with the evacuation plan.

Management Performance

3.1 Results of StarTrack Compliance Audit
4.3 Corrective Actions of Compliance Audit

There were no violations resulting in serious actual harm to public health or the environment.

Prior to the compliance audit, Toray Plastics (America), Inc. and the EPA reached a Consent Agreement and Order concerning violations to the CFC regulations (40 CFR part 82). TPA had initially notified both RI DEM and the EPA concerning refrigerant equipment leaks when we became aware of our contractor using improper procedures and documentation concerning the leaks and repairs.

As soon as TPA became aware of the situation, we corrected the leaks and fired the contractor. TPA provided detailed documentation to the EPA explaining the refrigerant leaks and the corrective actions taken to resolve this issue. Prior to the Consent Agreement and Order, TPA had approved a $165,000 capital project to replace the leaking refrigerant (R11) equipment with R404A/Brine solution equipment.

The following table summarizes the violations identified during the compliance audit. The items have been designated as program implementation or recordkeeping/reporting violations.

Item#	Category	Description	Corrective Actions
1	Program Implementation	An area of stained soil was observed in contractor maintenance area.	A soil sample was sent out for analysis, which confirmed an oil spill. RI DEM was notified. All soil has been excavated and properly disposed. Follow-up documentation was send to RI DEM. This topic is now included in the TPA's Contractor Orientation program and included in Contractor Environmental and Safety Policy.
2	Program Implementation	Empty drum was left in outdoor area requiring assessment of potential release.	Drum was removed. There is not discoloration of soil. Area behind Lumirror is now under routine housekeeping checks.
3	Program Implementation	Satellite waste oil containers were not kept closed except when waste was added or removed.	Spring-loaded funnels have been installed on satellite waste oil drums.
4	Program Implementation	Hazardous waste container in accumulation area did not have the proper waste code.	Annual hazardous waste training was completed in January. Weekly inspection check-sheets were updated. Waste code checking emphasized in the training.
5	Program Implementation	Satellite waste oil containers, including containers collecting oil dripping from vacuum pumps, did not have a label denoting hazardous waste.	Day containers for this application have been set up and labeled as Waste Oil - R010. The technicians have been communicated in emptying these containers on a daily basis.

6	Program Implementation	Above ground dike for 80,000-gallon fuel oil tank could not completely contain liquid because of open penetrations for grounding wires.	All cracks and open grounding wire cables have been sealed.
7	Program Implementation	Roofing material removed from the OBR facility should be tested for asbestos.	Per maintenance coordinator, no roofing material was actually disposed. However, a sample of the roof material was tested for asbestos. The results were negative.
8	Program Implementation	Incompatible waste materials (waste oxidizer and waste oil) were not segregated.	The disposal of the waste oxidizer is an infrequent disposal (once every few years). The maint. coordinator has been informed of the appropriate storage requirement. The environmental department will be informed of future work to insure proper storage.
9	Program Implementation	Confirmation was needed that OBR's heat transfer oil system did not contain PCB levels above 50 ppm.	A sample of this heat oil was sent out for analysis. The results were non-detectable.
10	Program Implementation	Discharge of chemical solution for annual cleaning of outdoor chiller coils was not included in the RIPDES permit to discharge surface water.	The procedure for cleaning the chiller coils has been modified. These coils will now only be rinsed with water. The cleaning solution has been eliminated.
11	Recordkeeping	State waste code for waste oil shipment manifest was incorrect (MA 97).	Documentation detailing the correction (MA97 to MA01) was submitted to the state.
12	Recordkeeping	TPA, as a large quantity generator facility, did not have a complete Contingency Plan and Hazardous Waste Personnel Training Plan.	SPCC plan is complete and approved by professional engineer. Hazardous waste training plan is included in TPA's Chemical Waste Handling Policy.
13	Recordkeeping	SPCC Plan did not have professional engineers certification of good engineering practice and missing state required schematic piping drawing.	SPCC plan is complete and approved by professional engineer. Hazardous waste training plan is included in TPA's Chemical Waste Handling Policy.

14	Recordkeeping	TPA did not have Emergency Plan posted as required in wastewater discharge permit.	The Emergency Plan has been posted in the wastewater treatment laboratory.
15	Recordkeeping	Documentation confirming that the amount of propylene glycol in the OBR closed loop-cooling system was less than the 10,000 lb. Tier II reporting limit was not available.	The system was confirmed to be less than 10,000 lbs. No reporting is required.
16	Recordkeeping	TPA did not have a current, valid permit for discharge of cooling water under the RIPDES program.	RI DEM was contacted via telephone. TPA received written confirmation that our 1993 permit is still in effect.
17	Recordkeeping	OBR did not have a Storm Water Pollution Prevention Plan.	The draft SWPPP has been completed.
18	Reporting	Registration form for CFC recycling equipment was not registered.	The appropriate forms were submitted to the EPA.

3.2 Results of StarTrack EMS Gap Analysis
3.3 Corrective Actions to the Star Track EMS Gap Analysis

TPA is in the initial phases of implementing an environmental management system and completed an EMS gap analysis with Irwin Engineers on August 11th and 12th, 1999. In October, TPA will submit an implementation plan for the environmental management system to the EPA StarTracks program.

Areas where TPA has some aspects of the EMS organization include Environmental Policy, Legal and Other Requirements, Implementation and Operation, Communication, and Emergency Preparedness and Response. TPA's environmental and safety department, CESC, and DESCs, provide organization for the environmental policy, legal requirements, implementation and operation, and communication. TPA's emergency response organization and training program has, in the last year, shown significant improvement.

The area of most needed improvement is development of a system for identifying environmental aspects and setting objectives and targets. Once the significant environmental aspects are identified for each department, a goal can be set for environmental improvement. Not only will this system improve our organization, but we should see future improvements in our environmental performance.

3.4 Unauthorized Releases to Land, Air, and Water
3.5 On-site Remediation Activities

There were no permit exceedances in 1998. The following table details the accidental releases, which occurred in 1998.

Incident #	Description	Amount of Release	Corrective Actions
1	Wastewater neutralization tank overflow	< 100 gallons of wastewater to soil	Soil was excavated and properly disposed. Overflow piping redesigned to eliminate this issue.
2	Methanol spilled on ground when transfer hoses were disconnected.	5 gallons of methanol to soil	Soil was excavated and properly disposed. Transfer hose disconnect procedures emphasized using catch tray.
3	Wastewater containing methanol spilled onto ground when tanker truck overflowed during non-routine procedure of cleaning methanol storage tank.	< 55 gallons of wastewater spilled to paved area.	Booms were placed around storm drains to minimize wastewater entering the storm drain system. Sand bags were placed in storm drains to contain the spill. Storm drain contents were pumped out.
4	Wastewater spilled to paved area when frac tank overflowed.	2200 gallons of wastewater spilled to paved area and storm drains.	Storm drains were contained as described in #3. Storm drains were pumped out. Wastewater transfer procedures were changed so that wastewater could only be transferred to a frac tank during day shift, with wastewater technicians overseeing the transfer.
5	Oil leaked onto pavement from trash compactor.	3 gallons	Oil was cleaned up with absorbent pads. Routine maintenance was discussed with compactor service company.
6	Ammonia odor was identified from locked container of cleaning solution bottles.	Trace amounts	The leaking bottle was found. All bottles were cleaned and leaking bottle repaired.

Product Performance

5.1 Major Post-Production Environmental Impacts

The major post-production environmental impact is the recycleability/reusability of the polyester and polypropylene film after customer use. At the present, TPA has not developed a program or procedures for handling this issue. As TPA is a wholly owned subsidiary of Toray International, the research and development resources come from Toray-Japan.

As TPA develops our EMS, this issue will be addressed and a program that can be handled by TPA resources will be initiated.